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OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			MAYO III, WILLIAM H	
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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/713,105
Filing Date: November 17, 2003
Appellant(s): KIHIRA, SOUJI

MAILED
JUL 27 2005
GROUP 2800

Holly N Moore
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed June 23, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. After further consideration of applicant's argument, the 35 USC 112, first paragraph rejection of claims 1-6 has been withdrawn.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

The following is a listing of the evidence (e.g., patents, publications, Official Notice, and admitted prior art) relied upon in the rejection of claims under appeal.

Applicant's Own Admission of Prior Art under the heading "Description of Related Art (herein referred to as AOAPA)

5,473,117	MORGAN et al	12-1995
3,280,246	LAWSON et al	10-1966

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Own Admission of Prior Art (herein referred to as AOAPA) in view of Morgan et al (Pat Num 5,473,117, herein referred to as Morgan). AOAPA discloses under the heading "Description of the Related Art" that shielded wire harnesses are commonly utilized for connecting machines such as an inverter unit and a motor in an electrical vehicle (Page 1, lines 9-11 of applicant's specification). Specifically, with respect to claim 1, AOAPA discloses that the well known shielded wire harness comprises a plurality of wires (Page 1, lines 11-18); a plurality of wire-side terminals respectively connected to an end portions of the wires (Page 1, lines 11-18), and configured to be connected respective terminals disposed within a shield case of an equipment (Page 1, lines 11-18).

However, AOAPA doesn't necessarily disclose the shielding member formed of a tube shape and configured to enclose the plurality of wires collectively and to be connected to the shield case, wherein the shielding member comprises a main shield portion made of a substantially rigid metal pipe, and a sub-shield portion formed shorter than the main shield portion to be

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configured and deformable (claim 1), nor the sub-shield portion comprises a braided member formed in a tube shape by braided metal thin lines (claim 2), nor the shielding member further comprising a connecting pipe made of metal and connected to the main shield portion; and a shield shell having a conductive characteristic and configured be connected the shield case, wherein one end portion of the braided member is connected to the connecting pipe, and the other end portion of the braided member being connected to the shield shell (claim 3), nor the shielding means comprising a drain hole (claim 5), nor the drain hole being formed at the lower most position of the wiring route of the shielded wire harness and opened in substantially downward direction (claim 6).

Morgan teaches a method and apparatus (Figs 1-7) for flexibly shielding the end of a large cable from EMI (Col 1, lines 5-10) such that the method and apparatus eliminate or reduces disadvantages and problems associated with prior apparatuses for shielding large cables (Col 1, lines 50-55). Specifically, with respect to claim 1, Morgan teaches a shielding member (24) formed of a tube shape and configured to enclose the plurality of wires (18) collectively and to be connected to the shield case (52), wherein the shielding member (24) comprises a main shield portion made of a metal pipe (14), and a sub-shield portion (26) formed shorter than the main shield portion (14, Fig 8) and configured to be configured and deformable (Col 4, lines 3-8). With respect to claim 2, Morgan teaches that the sub-shield portion (26) comprises a braided member formed in a tube shape by braided metal thin lines (Col 3, lines 53-55). With respect to claim 3, Morgan teaches that the shielding member (24) further

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comprising a connecting pipe (14) made of metal and connected to the main shield portion (16, Col 1, lines 4-10); and a shield shell (36) having a conductive characteristic (Col 3, lines 53-55) and configured be connected the shield case (52, Fig 8), wherein one end portion of the braided member (26) is connected to the connecting pipe (14), and the other end portion of the braided member (26) being connected to the shield shell (36). With respect to claim 5, Morgan teaches that the shielding means (24) comprising a drain hole (40, Col 9-16). With respect to claim 6, Morgan teaches that the drain hole (40) is formed at the lower most position of the wiring route of the shielded wire harness (Figs 4-5) and opened in substantially downward direction (Col 4, lines 9-25).

With respect to claims 1-3 and 5-6, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the wiring harness of AOAPA to comprise the shield configuration as taught by Morgan because Morgan teaches that such a configuration provides flexibly shielding the end of a large cable from EMI (Col 1, lines 5-10) such that the method and apparatus eliminate or reduce disadvantages and problems associated with prior apparatuses for shielding large cables (Col 1, lines 50-55).

With respect to claim 1, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the main shield portion of modified AOAPA to comprise a metallic sheet forming the shield, which inherently would be substantially rigid because metallic sheets forming shields are commonly utilized as shield, rather than braided shields which cannot shield the interior components entirely, because of there ability to

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cover the interior components entirely and therefore prevent external noise such as EMI and RFI from interfering with the interior components.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Own Admission of Prior Art (herein referred to as AOAPA) in view of Morgan (Pat Num 5,473,117), as applied to claim 1 above (herein referred to as modified AOAPA), further in view of Lawson et al (Pat Num 3,280,246, herein referred to as Lawson). Modified AOAPA discloses under the heading "Description of the Related Art" that shielded wire harnesses are commonly utilized for connecting machines such as an inverter unit and a motor in an electrical vehicle (Page 1, lines 9-11 of applicant's specification).

However, modified AOAPA doesn't necessarily disclose the connecting pipe being plated (claim 4).

Lawson teaches a plurality of wires (Figs 1-8) being shielded against high frequency currents by means of a braided metallic covering (Col 1, lines 9-14) that eliminates the disadvantages of the prior art shields (Col 1, lines 37-40). Specifically, with respect to claim 4, Lawson teaches a shielding device (10) surrounding a plurality of wires (12), wherein the shielding device (10) comprises an outer annular tube (18), that may be made of tinned brass (Col 2, lines 65-71).

With respect to claim 4, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the shielding device of modified AOAPA to comprise the tube being made of tinned brass as taught by Lawson because Lawson teaches that such a configuration provides shielding against high frequency currents by means of a braided

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metallic covering (Col 1, lines 9-14) that eliminates the disadvantages of the prior art shields (Col 1, lines 37-40) and since it has been held to be within general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

(10) Response to Argument

Applicant's arguments filed June 23, 2005 have been fully considered but they are not persuasive. Specifically, the applicant argues the following:

- A) Claims 1-6 comply with the written description requirement under 35 USC 112, first paragraph and therefore the 35 USC 112, first paragraph rejection is improper.
- B) AOAPA nor Morgan, alone or in combination, teach or suggests a shielding member having a main shield portion made of substantially rigid metal pipe as claimed and therefore the claimed invention would not have been obvious in view of AOAPA and Morgan.
- C) AOAPA doesn't teach or suggest all of the claimed invention, specifically, a main shield portion made of substantially rigid metal pipe.
- D) Morgan doesn't teach or suggest a substantially rigid metal pipe as claimed because Morgan teaches the shield being a foil member which is not substantially rigid.

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- E) Lawson also doesn't teach a main shield portion made of substantially rigid metal pipe.

With respect to argument A, the examiner respectfully submits that this argument is moot in view of the withdrawal of the 35 USC 112, first paragraph.

With respect to argument B, C, & D, the examiner respectfully traverses. While the examiner has stated on the record, that AOAPA doesn't specifically disclose a main shield comprising a substantially rigid metal pipe, it should be noted that that the examiner is required to give the claims the broadest reasonable interpretation. Specifically, MPEP 2111 states:

During patent examination, the pending claims must be "given *>their< broadest reasonable interpretation consistent with the specification." > In re Hyatt, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000).< Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969).

Given the broadest interpretation of the term metallic pipe, the Webster's Dictionary defines the term pipe as

"Pipe-a hollow cylinder or tube of material".

Based on the definition of pipe, one of ordinary skill in the art can determine that a metallic pipe, would be a hollow cylinder or tube of metal. In light of the broadest reasonable interpretation stated above, clearly AOAPA teaches a metallic sheath that is formed as hollow cylinder or tube of material which is made of a metallic material and therefore clearly discloses a metallic

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pipe as defined by the broadest reasonable interpretation stated above.

Secondly, AOAPA teaches a well known shielded wire harness comprises a plurality of wires (Page 1, lines 11-18); a plurality of wire-side terminals respectively connected to an end portions of the wires (Page 1, lines 11-18), and configured to be connected respective terminals disposed within a shield case of an equipment (Page 1, lines 11-18), wherein in order to protect prior art wire harness from bounced stones and the like, there is employed a structure in which the wires and shielding member are stored in an armored case made of high-strength material such as metal (Page 2, lines 15-18). The underlined terms are the same terms the applicant states the make the case that the original specification has proper support for claiming a "substantially rigid pipe" (see appeal brief, page 5, paragraph 4). Specifically, the applicant states

According to the invention, since the main shield portion is composed of a metal-made pipe, it not only can fulfill a shielding function but also can positively protect the wires from object such as bounced stones.

Clearly, if the claimed invention is hypothetically made of a rigid metallic tube that provides this characteristic, then certainly the AOAPA metallic tube must be made of the same material as that of the claimed invention since it exhibits the same characteristic. MPEP 2112 discloses that

The express, implicit, and inherent disclosures of a prior art reference may be relied upon in the rejection of claims under 35 U.S.C. 102 or 103. "The inherent teaching of a prior art reference, a question of fact, arises both in the context of anticipation and obviousness." In re Napier, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995) (affirmed a 35 U.S.C. 103 rejection based in part on inherent disclosure in one of

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the references). See also *In re Grasselli*, 713 F.2d 731, 739, 218 USPQ 769, 775 (Fed. Cir. 1983).

In this case, while the applicant has admitted that the shield of the prior art exhibits the same characteristics disclosed by the claimed invention, the applicant's disclosure of the prior art doesn't specifically disclose that the shield is made of a rigid tube.

Therefore, the examiner has relied on Morgan for its teachings of a method and apparatus (Figs 1-7) for flexibly shielding the end of a large cable from EMI (Col 1, lines 5-10) such that the method and apparatus eliminate or reduces disadvantages and problems associated with prior apparatuses for shielding large cables. Clearly, rigid shields of cables are almost always folded backwards to ensure a good connection between the grounding shield and the cable shield as shown and taught in Morgan (Col 3, lines 41-48). Secondly, Morgan clearly teaches that the cable (10) itself, is normally rigid and hard to flexibly bend (Col 1, lines 17-18). So how is it, that the cable is rigid, however the shields are bend backwards? The answer is because the shield layer is cut horizontally in sections in order to fold individual section of the shield backward, which is also taught by Morgan (Col 3, lines 30-40), because a rigid shield layer itself cannot be folded upon itself, without the cuts or slits. Based on the teachings of Morgan, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the main shield portion of modified AOAPA to comprise a metallic sheet forming the shield, which inherently would be substantially rigid because metallic sheets forming shields

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are commonly utilized as shield, rather than braided shields which cannot shield the interior components entirely, because of their ability to cover the interior components entirely and therefore prevent external noise such as EMI and RFI from interfering with the interior components.

Thirdly, hypothetically speaking, suppose Morgan was silent as to the teaching of the shields being rigid (clearly Morgan teaches the cable and shields being substantially rigid as disclosed above), the examiner would like to address the relative term "substantially rigid". What exactly denotes "substantially rigid"? Is it safe to state, that every metal has some degree of rigidity. Specifically, does a metal sheet utilized as a shield, have some degree of rigidity? Is that degree of rigidity considered to be "substantially rigid?" The courts have been consistent that the term "substantially" is a broad term. Specifically, the courts have found that :

The term "substantially" is often used in conjunction with another term to describe a particular characteristic of the claimed invention. It is a broad term. *In re Nehrenberg*, 280 F.2d 161, 126 USPQ 383 (CCPA 1960).

The court held that the limitation "to substantially increase the efficiency of the compound as a copper extractant" was definite in view of the general guidelines contained in the specification. *In re Mattison*, 509 F.2d 563, 184 USPQ 484 (CCPA 1975). The court held that the limitation "which produces substantially equal E and H plane illumination patterns" was definite because one of ordinary skill in the art would know what was meant by "substantially equal." *Andrew Corp. v. Gabriel Electronics*, 847 F.2d 819, 6 USPQ2d 2010 (Fed. Cir. 1988).

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When relative terms are utilized in the claims, the Manual of Patent Examining Procedure (MPEP) instructs the examiner to refer to the specification for a general definition of the relative term. Specifically, MPEP 2173.05(b) states;

WHEN A TERM OF DEGREE IS PRESENT, DETERMINE WHETHER A
STANDARD IS DISCLOSED OR WHETHER ONE OF ORDINARY SKILL
IN THE ART WOULD BE APPRISED OF THE SCOPE OF THE CLAIM

When a term of degree is presented in a claim, first a determination is to be made as to whether the specification provides some standard for measuring that degree. If it does not, a determination is made as to whether one of ordinary skill in the art, in view of the prior art and the status of the art, would be nevertheless reasonably apprised of the scope of the invention. Even if the specification uses the same term of degree as in the claim, a rejection may be proper if the scope of the term is not understood when read in light of the specification. While, as a general proposition, broadening modifiers are standard tools in claim drafting in order to avoid reliance on the doctrine of equivalents in infringement actions, when the scope of the claim is unclear a rejection under 35 U.S.C. 112, second paragraph, is proper. See *In re Wiggins*, 488 F. 2d 538, 541, 179 USPQ 421, 423 (CCPA 1973).

When relative terms are used in claims wherein the improvement over the prior art rests entirely upon size or weight of an element in a combination of elements, the adequacy of the disclosure of a standard is of greater criticality.

Given the above stated guideline, the examiner would be instructed to view the specification, and again refer to the characteristic of the shield having the characteristic stated on Page 17, lines 9-14

According to the invention, since the main shield portion is composed of a metal-made pipe, it not only can fulfill a shielding function but also can positively protect the wires from object such as bounced stones.

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The applicant has admitted on the record that such a characteristic is a property of a "substantially rigid shield". The applicant has also admitted that the prior art shield has this property (see page 2, lines 15-18). Given the above guideline, one would have to assume that the prior art shield, exhibiting the same property as the claimed invention, would also have the same structure.

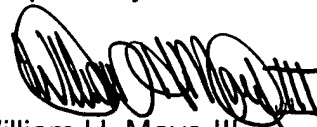
Based on the above stated comments, the examiner respectfully submits that the 35 USC 103(a) rejection of claims 1-6 are proper and just.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



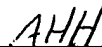
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